

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Jeff G. Hall, *et al*
Serial No.: 10/074,328
Filed: 02/12/2002
Entitled: Nucleic Acid Detection Employing Charged Adducts

Group No.: 1634
Examiner: Jehanne Souaya Sitton

TRANSMITTAL OF PTO FORM-1449

Commissioner for Patents
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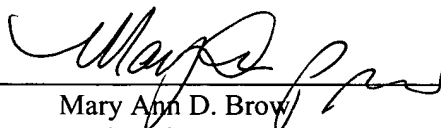
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Dated: July 5, 2005


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U.S. Department of
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Attorney Docket No.: FORS-06930

Serial No.: 10/074,328

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Use Several Sheets If Necessary)

(37 CFR § 1.98(b))

Applicant: Mary Ann D. BROW *et al.*

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Group Art Unit: 1634

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing Date
	1	6,090,606	07/18/2000	Prudent <i>et al.</i>	435	6	12/02/96
	2	6,090,543	07/18/2000	Prudent <i>et al.</i>	435	6	12/02/96
	3	6,001,567	12/14/99	Brow <i>et al.</i>	435	6	07/12/96
	4	5,994,069	11/30/99	Hall <i>et al.</i>	435	6	03/24/97
	5	5,985,557	11/16/99	Prudent <i>et al.</i>	435	6	11/26/96
	6	5,916,426	06/29/99	Madabhushi <i>et al.</i>	204	451	08/19/97
	7	5,888,780	03/30/99	Dahlberg <i>et al.</i>	435	91.53	02/19/97
	8	5,882,867	03/16/99	Ullman <i>et al.</i>	435	6	07/07/95
	9	5,874,283	02/23/99	Harrington <i>et al.</i>	435	252	05/30/95
	10	5,846,717	12/08/98	Brow <i>et al.</i>	435	6	01/24/97
	11	5,843,669	12/01/98	Kaiser <i>et al.</i>	435	6	11/29/96
	12	5,843,654	12/01/98	Heisler <i>et al.</i>	435	6	07/07/95
	13	5,837,450	11/17/98	Dahlberg <i>et al.</i>	435	6	06/06/95
	14	5,830,664	11/03/98	Rosemeyer <i>et al.</i>	435	6	07/11/95
	15	5,807,682	09/15/98	Grossman <i>et al.</i>	435	6	06/17/97
	16	5,795,763	08/18/98	Dahlberg <i>et al.</i>	435	194	06/06/95
	17	5,792,614	08/11/98	Western <i>et al.</i>	435	6	08/02/96
	18	5,783,392	07/21/98	Seibl <i>et al.</i>	435	6	11/22/95
	19	5,777,096	07/07/98	Grossman <i>et al.</i>	536	24.3	05/06/96
	20	5,719,028	02/17/98	Dahlberg <i>et al.</i>	435	6	02/06/97
	21	5,703,222	12/30/97	Grossman <i>et al.</i>	536	24.3	11/21/95
	22	5,698,400	12/16/97	Cotton <i>et al.</i>	435	6	09/16/96
	23	5,691,142	11/25/97	Dahlberg <i>et al.</i>	435	6	06/06/96
	24	5,660,988	08/26/97	Duck <i>et al.</i>	435	6	06/07/95
	25	5,614,402	03/25/97	Dahlberg <i>et al.</i>	435	199	06/06/94
	26	5,601,976	02/11/97	Yamane <i>et al.</i>	435	6	09/16/92
	27	5,545,729	08/13/96	Goodchild <i>et al.</i>	536	24.5	12/22/94
	28	5,541,311	07/30/96	Dahlberg <i>et al.</i>	536	23.7	06/04/93
	29	5,514,543	05/07/96	Grossman <i>et al.</i>	435	6	08/4/93
	30	5,494,810	02/27/96	Barany <i>et al.</i>	435	91.52	11/22/94
	31	5,487,972	01/30/96	Geland <i>et al.</i>	435/6	435/91.2	01/05/93

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	32	5,470,705	11/28/95	Grossman <i>et al.</i>	435	6	04/07/92
	33	5,427,930	06/27/95	Birkenmeyer <i>et al.</i>	435	91/52	06/28/91
	34	5,422,253	06/06/95	Dahlberg <i>et al.</i>	435	91.53	12/07/92
	35	5,407,795	04/18/95	Kolberg <i>et al.</i>	435	5	10/15/93
	36	5,403,711	04/04/95	Walder <i>et al.</i>	435	6	07/06/93
	37	5,380,833	06/10/95	Urdea	536	22.1	12/13/91
	38	5,210,015	05/11/93	Gelfand <i>et al.</i>	435	6	05/11/93
	39	5,144,019	09/01/92	Rossi	536	27	06/21/89
	40	5,118,605	06/02/92	Urdea	435	6	09/29/88
	41	5,108,892	04/28/92	Burke <i>et al.</i>	435	6	08/03/89
	42	5,030,557	07/09/91	Hogan <i>et al.</i>	435	6	11/24/87
	43	5,011,769	04/30/91	Duck <i>et al.</i>	435	6	04/29/88
	44	4,876,187	10/24/89	Duck <i>et al.</i>	435	6	12/05/85
	45	4,818,680	04/04/89	Collins <i>et al.</i>	435	6	12/18/85
	46	4,775,619	10/04/88	Urdea	435	6	10/16/84
	47	4,683,202	07/28/87	Mullis	435	91	10/25/85
	48	4,683,195	07/28/87	Mullis <i>et al.</i>	435	6	02/07/86
	49	4,683,194	07/28/87	Saiki <i>et al.</i>	435/6	935/78	03/28/85
	50	4,518,526	05/21/85	Olson	260	112	06/01/84
	51	4,512,922	04/23/85	Jones <i>et al.</i>	260	112	06/01/84
	52	4,511,503	04/16/85	Olson <i>et al.</i>	260	112	06/01/84S
	53	4,511,502	04/16/85	Builder <i>et al.</i>	260	112	06/01/84

FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		Document Number	Publication Date	Country / Patent Office	Class	Subclass	Translation	
							Yes	No
	54	90/01069	02/08/90	PCT	C12Q	1/68		
	55	92/06200	04/16/92	PCT	C12N	15/54		
	56	91/09950	07/11/91	PCT	C12N	15/54		
	57	90/15157	12/13/90	PCT	C12Q	1/68		
	58	96/40999	12/19/96	PCT	C12Q	C10P 19/34		
	59	94/29482	12/22/94	PCT	C12Q 1/68	C12P 19/34		
	60	95/14106	05/26/95	PCT	C12Q 1/68			
	61	92/02638	02/20/92	PCT	C12Q 1/68	1/70		

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	62	89/09284	10/05/89	PCT	C12Q 1/68			
	63	96/20287	07/04/96	PCT	C12Q 1/68	1/44		
	64	0 411 186 A1	02/06/91	European Patent Application				
	65	0 482 714 A1	10/22/91	European Patent Application	C12Q	1/68		

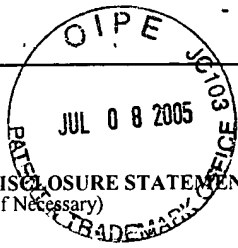
OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

	66	Abrams <i>et al.</i> , "Comprehensive Detection of Single Base Changes in Human Genomic DNA Using Denaturing Gradient Gel Electrophoresis and a GC Clamp," <i>Genomics</i> 7:463-475 (1990)						
	67	Akhmetzjanov and Vakhitov, "Molecular cloning and nucleotide sequence of the DNA polymerase gene from <i>Thermus flavus</i> ," <i>Nucl. Acids Res.</i> 20:5839 (1992)						
	68	Altamirano <i>et al.</i> , "Identification of Hepatitis C Virus Genotypes among Hospitalized Patients in British Columbia, Canada," <i>J. Infect. Dis.</i> 171:1034-1038 (1995).						
	69	Anderson and Young, "Quantitative Filter Hybridization", in <i>Nucleic Acid Hybridization</i> , Eds Hames & Higgins, IRL Press, Washington, DC, pp. 73-111 (1985)						
	70	Electrophoresis, 2nd Edition, ed. Anthony T. Andrews, Clarendon Press, New York, New York (1986), pp. 153-154						
	71	Antao <i>et al.</i> "A thermodynamic study of unusually stable RNA and DNA hairpins," <i>Nucl. Acids Res.</i> 19:5901-5905 (1991)						
	72	Bambara <i>et al.</i> , "Enzymes and Reactions at the Eukaryotic DNA Replication Fork," <i>J. Biol. Chem.</i> 272:4647-4650 (1997)						
	73	Barany, "Genetic disease detection and DNA amplification using cloned thermostable ligase," <i>Proc. Natl. Acad. Sci.</i> , 88:189-193 (1991)						
	74	Barany, "The Ligase Chain Reaction in a PCR World," <i>PCR Methods and Applic.</i> , 1:5-16 (1991)						
	75	Bardwell <i>et al.</i> , "Specific Cleavage of Model Recombination and Repair Intermediates by the Yeast Rad1-Rad10 DNA Endonuclease," <i>Science</i> 265:2082-2085 (1994)						
	76	Barlow and Lehrach, "Genetics by gel electrophoresis: the impact of pulsed field gel electrophoresis on mammalian genetics," <i>Trends Genet.</i> , 3:167-171 (1987)						
	77	Barnes <i>et al.</i> , "Mechanism of Tracking and Cleavage of Adduct-damaged DNA Substrates by the Mammalian 5'- to 3'Exonuclease/Endonuclease RAD2 Homologue 1 or Flap Endonuclease 1," <i>J. Biol. Chem.</i> 271:29624-29632 (1996)						
	78	Bergseid <i>et al.</i> , "A High Fidelity Thermostable DNA Polymerase Isolated from <i>Pyrococcus Furiosus</i> ," <i>Strategies</i> 4:34-35 (1991)						
	79	Bhagwat <i>et al.</i> , "The 5'-Exonuclease Activity of Bacteriophage T4 RNase H is Stimulated by the T4 Gene 32 Single-stranded DNA-binding Protein, but Its Flap Endonuclease Is Inhibited," <i>J. Biol. Chem.</i> 272:28523-28530 (1997);						
	80	Bonch-Osmolovskaya, <i>et al.</i> , <i>Microbiology</i> (Engl. Transl. of Mikrobiologiya) 57:78-85 (1988)						
	81	Borresen <i>et al.</i> , "Constant denaturant gel electrophoresis as a rapid screening technique for p53 mutations," <i>Proc. Natl. Acad. Sci. USA</i> 88:8405-8409 (1991)						
	82	Brutlag <i>et al.</i> , "An Active Fragment of DNA Polymerase Produced By Proteolytic Cleavage," <i>Biochem. Biophys. Res. Commun.</i> 37:982-989 (1969)						
	83	Brow <i>et al.</i> , "Differentiation of Bacterial 16S rRNA Genes and Intergenic Regions and <i>Mycobacterium tuberculosis katG</i> Genes by Structure-Specific Endonuclease Cleavage," <i>J. of Clin. Micro.</i> 34:3129-3137 (1996)						
	84	Carballeira <i>et al.</i> , "Purification of a Thermostable DNA Polymerase from <i>Thermus thermophilus</i> HB8, Useful in the Polymerase Chain Reaction," <i>Biotechniques</i> 9:276-281 (1990)						
	85	Ceska <i>et al.</i> , "A helical arch allowing single-stranded DNA to thread through T5 5'-exonuclease," <i>Nature</i> 382:90-93 (1996)						
	86	Ceska <i>et al.</i> , "Structure-specific DNA cleavage by 5' nucleases," <i>TIPS</i> 23 (1998)						

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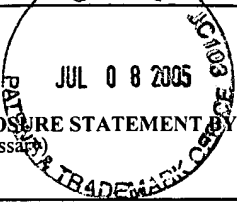
87	Copley and Boot, "Exonuclease Cycling Assay: An Amplified Assay for the Detection of Specific DNA Sequences," <i>BioTechniques</i> 13:888-891 (1992)
88	Cuthbert, "Hepatitis C: Progress and Problems," <i>Clin. Microbiol. Rev.</i> 7:505-532 (1994)
89	DeMott <i>et al.</i> , "Human RAD2 Homolog 1 5'-3'-Exo/Endonuclease Can Efficiently Excise a Displaced DNA Fragment Containing a 5'-Terminal Abasic Lesion by Endonuclease Activity," <i>J. Biol. Chem.</i> 271:30068-30076 (1996)
90	Doty <i>et al.</i> , "Strand Separation and Specific Recombination in Deoxyribonucleic Acids: Physical Chemical Studies," <i>Proc. Natl. Acad. Sci. USA</i> 46:461-476 (1960)
91	Duck <i>et al.</i> , "Probe Amplifier System Based on Chimeric Cycling Oligonucleotides," <i>BioTech.</i> , 9:142-147 (1990)
92	Dunn <i>et al.</i> , "Complete Nucleotide Sequence of Bacteriophage T7 DNA and the Locations of T7 Genetic Elements," <i>J. Mol. Biol.</i> 166:477-535 (1983)
93	Engelke, "Purification of <i>Thermus Aquaticus</i> DNA Polymerase Expressed in <i>Escherichia coli</i> ," <i>Anal. Biochem</i> 191:396-400 (1990)
94	Eom <i>et al.</i> , "Structure of <i>Taq</i> polymerase with DNA at the polymerase active site," <i>Nature</i> 382:278-282 (1996)
95	Erllich <i>et al.</i> , "Recent Advances in the Polymerase Chain Reaction," <i>Science</i> 252:1643-1651 (1991)
96	Fahy <i>et al.</i> , "Self-sustained Sequence Replication (3SR): An Isothermal Transcription-based Amplification System Alternative to PCR," <i>PCR Meth. Appl.</i> , 1:25-33 (1991)
97	Garforth <i>et al.</i> , "Structure-specific DNA binding by bacteriophage T5 5'-3' exonuclease," <i>Nucleic Acids Res.</i> 25:3801-3807 (1997)
98	Gelfand, <i>PCR Technology - Principles and Applications for DNA Amplification</i> (H.A. Erlich, Ed.), Stockton Press, New York, p. 19 (1989)
99	Guatelli <i>et al.</i> , "Isothermal, <i>in vitro</i> amplification of nucleic acids by a multienzyme reaction modeled after retroviral replication," <i>Proc. Natl. Acad. Sci.</i> , 87:1874-1878 (1990) with an erratum at <i>Proc. Natl. Acad. Sci.</i> , 87:7797 (1990)
100	Harrington <i>et al.</i> , "DNA Structural Elements Required for FEN-1 Binding," <i>J. Biol. Chem.</i> 270:4503-4508 (1995)
101	Harrington <i>et al.</i> , "The characterization of a mammalian DNA structure-specific endonuclease," <i>EMBO Journ.</i> 13:1235-1246 (1994)
102	Harrington and Lieber, "Functional domains within FEN-1 and RAD2 define a family of structure-specific endonucleases: implications for nucleotide excision repair," <i>Genes and Develop.</i> 8:1344-1355 (1994)
103	Hayashi, "PCR-SSCP: A Simple and Sensitive Method for Detection of Mutations in the Genomic DNA," <i>PCR Meth. Appl.</i> , 1:34-38, (1991)
104	Higuchi, R., In Ehrlich, H.A. (Ed.), <i>PCR Technology: Principles and Applications for DNA Amplification</i> , Stockton Press, New York, pp. 61-70 (1991)
105	Hiraro <i>et al.</i> , "Most compact hairpin-turn structure exerted by a short DNA fragment, d(GCGAAGC) in solution: an extraordinarily stable structure resistant to nucleases and heat," <i>Nuc. Acids Res.</i> 22:576-582 (1994)
106	Holland <i>et al.</i> , "Detection of specific polymerase chain reaction product by utilizing the 5'-3' exonuclease activity of <i>Thermus aquaticus</i> DNA polymerase," <i>Proc. Natl. Acad. Sci. USA</i> 88:7276-7280 (1991)
107	Hosfield <i>et al.</i> , "Structure of the DNA Repair and Replication Endonuclease and Exonuclease FEN-1: Coupling DNA and PCNA Binding to FEN-1 Activity," <i>Cell</i> 95:135-146 (1996)
108	Hosfield <i>et al.</i> , "Newly Discovered Archaeobacterial Flap Endonucleases Show a Structure-Specific Mechanism for DNA Substrate Binding and Catalysis Resembling Human Flap Endonuclease-1," <i>J. Biol. Chem.</i> 273:27154-17161
109	Huang <i>et al.</i> , "Role of Calf RTH-1 Nuclease in Removal of 5'-Ribonucleotides during Okazaki Fragment Processing," <i>Biochemistry</i> 35:9266-9277 (1996)
110	Hwang <i>et al.</i> , "The crystal structure of flap endonuclease-1 from <i>Methanococcus jannaschii</i> ," <i>Nature Structural Biology</i> 5:707-713 (1998); 1
111	Inchauspe <i>et al.</i> , "Use of Conserved Sequences from Hepatitis C Virus for the Detection of Viral RNA in Infected Sera by Polymerase Chain Reaction," <i>Hepatology</i> 14:595-600 (1991)
112	Ito <i>et al.</i> , "Compilation and alignment of DNA polymerase sequences," <i>Nucl. Acids Res.</i> 19:4045-4057 (1991)

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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)					
	113	Johnson <i>et al.</i> , "Requirement of the Yeast <i>RTH1</i> 5' to 3' Exonuclease for the Stability of Simple Repetitive DNA," <i>Science</i> 269:238-240 (1995)			
	114	Kaledin <i>et al.</i> , "Isolation and Properties of DNA Polymerase From the Extremely Thermophilic Bacterium <i>Thermus flavus</i> ," <i>Biokhimiya</i> 46(9):1576-1584 (1981)			
	115	Kim <i>et al.</i> , "Crystal structure of <i>Thermus aquaticus</i> DNA polymerase," <i>Nature</i> 376:612-616 (1995)			
	116	Kornberg, <i>DNA Replication</i> , W.H. Freeman and Co., San Francisco, pp. 127-139 (1980)			
	117	Kotler <i>et al.</i> , "DNA sequencing: Modular primers assembled from a library of hexamers or pentamers," <i>Proc. Natl. Acad. Sci. USA</i> 90:4241-4245 (1993)			
	118	Kwoh <i>et al.</i> , "Transcription-based amplification system and detection of amplified human immunodeficiency virus type 1 with a bead-based sandwich hybridization format," <i>Proc. Natl. Acad. Sci.</i> , 86:1173-1177 (1989)			
	119	Kwok <i>et al.</i> , "Effects of primer-template mismatches on the polymerase chain reaction: Human immunodeficiency virus type 1 model studies," <i>Nucl. Acids Res.</i> , 18:999-1005 (1990)			
	120	Laemmli, "Cleavage of Structural proteins during the Assembly of the Head of Bacteriophage T4," <i>Nature</i> 277:680-685 (1970)			
	121	Landegren, "Molecular mechanics of nucleic acid sequence amplification," <i>Trends in Genetics</i> 9:199-204 (1993)			
	122	Lawyer <i>et al.</i> , "Isolation, Characterization, and Expression in <i>Escherichia coli</i> of the DNA Polymerase Gene from <i>Thermus aquaticus</i> ," <i>J. Biol. Chem.</i> 264:6427-6437 (1989)			
	123	Leirimo <i>et al.</i> , "Replacement of Potassium Chloride by Potassium Glutamate Dramatically Enhances Protein-DNA Interactions in Vitro," <i>Biochem.</i> 26:2095-2101 (1987)			
	124	Lerman and Silverstein, "Computational Simulation of DNA Melting and Its Application to Denaturing Gradient Gel Electrophoresis," <i>Meth. Enzymol.</i> , 155:482-501 (1987)			
	125	Li <i>et al.</i> , "Lagging Strand DNA Synthesis at the Eukaryotic Replication Fork Involves Binding and Stimulation of FEN-1 by Proliferating Cell Nuclear Antigen," <i>J. Biol. Chem.</i> 270:22109-22112 (1995)			
	126	Lieber, "The FEN-1 family of structure-specific nucleases in eukaryotic DNA replication, recombination and repair," <i>BioEssays</i> 19:233-240 (1997)			
	127	Lindahl, <i>et al.</i> , "Deoxyribonuclease IV: A New Exonuclease From Mammalian Tissues," <i>Proc. N.A.S.</i> 62:597-603			
	128	Lindahl and Karlström, "Heat-Induced Depyrimidination of Deoxyribonucleic Acid in Neutral Solution," <i>Biochem.</i> 12:5151-5154 (1973)			
	129	Liu and Sommer, "Parameters Affecting the Sensitivity of Dideoxy Fingerprinting and SSCP," <i>PCR Methods Appl.</i> , 4:97-108 (1994)			
	130	Longley <i>et al.</i> "Characterization of the 5' to 3' exonuclease associated with <i>Thermus aquaticus</i> DNA polymerase," <i>Nucl. Acids Res.</i> 18:7317-7322 (1990)			
	131	Lundquist, <i>et al.</i> , "Transient Generation of Displaced Single-Stranded DNA during Nick Translation," <i>Cell</i> 31:53-60			
	132	Lyamichev <i>et al.</i> "Structure-Specific Endonucleolytic Cleavage of Nucleic Acids by Eubacterial DNA Polymerases," <i>Science</i> 260:778-783 (1993)			
	133	Marmur and Lane, "Strand Separation and Specific Recombination in Deoxyribonucleic acids: Biological Studies," <i>Proc. Natl. Acad. Sci. USA</i> 46:453-461 (1960)			
	134	Mathur <i>et al.</i> , "The DNA polymerase gene from the hyperthermophilic marine archaeobacterium <i>Pyrococcus furiosus</i> , shows sequence homology with α -like DNA polymerases," <i>Nucl. Acids Res.</i> 19:6952 (1991)			
	135	Milligan and Ublenbeck, "Synthesis of Small RNAs Using T7 RNA Polymerase," <i>Methods Enzymol.</i> 180:51 (1989)			
	136	Milligan <i>et al.</i> , "Oligoribonucleotide synthesis using T7 RNA polymerase and synthetic DNA templates," <i>Nucl. Acids. Res.</i> 15(21): 8783-8789 (1987)			
	137	Mullis, "The Polymerase Chain Reaction in an Anemic Mode: How to Avoid Cold Oligodeoxyribonuclear Fusion," <i>PCR Methods Applic.</i> , 1:1-4 (1991)			
	138	Mullis and Faloona, "Specific Synthesis of DNA <i>in Vitro</i> via a Polymerase-Catalyzed Chain Reaction," <i>Methods in Enzymology</i> 155:335-350 (1987)			
Examiner:			Date Considered:		
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Group Art Unit: 1634

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

139	Murante <i>et al.</i> , "Calf 5' to 3' Exo/Endonuclease Must Slide from a 5' End of the Substrate to Perform Structure-specific Cleavage," <i>J. Biol. Chem.</i> 270:30377-30383 (1995)
140	Murante <i>et al.</i> , "The Calf 5'- to 3'-Exonuclease Is Also an Endonuclease with Both Activities Dependent on Primers Annealed Upstream of the Point of Cleavage," <i>J. Biol. Chem.</i> 269:1191-1196 (1994)
141	Murray <i>et al.</i> , "Structural and Functional Conservation of the Human Homolog of the <i>Schizosaccharomyces pombe rad2</i> gene, Which is Required for Chromosome Segregation and Recovery from DNA Damage," <i>Molecular and Cellular Biology</i> 14:4878-4888 (1994)
142	Myers <i>et al.</i> , "Reverse Transcription and DNA amplification by a <i>Thermus thermophilus</i> DNA Polymerase," <i>Biochem.</i> 30:7661-7666 (1991)
143	Nielsen PE <i>et al.</i> , "Peptide nucleic acids (PNAs): Potential anti-sense and anti-gene agents," <i>Anticancer Drug Des.</i> 8:53-63 (1993)
144	Nolan <i>et al.</i> , "Kinetic Analysis of Human Flap Endonuclease-1 by Flow Cytometry," <i>Biochemistry</i> 35:11668-11677 (1996)
145	Nugent <i>et al.</i> , "Characterization of the Apurinic Endonuclease Activity of <i>Drosophila</i> Rrpl," <i>Biochemistry</i> 32:11445-11452 (1993)
146	Perler <i>et al.</i> , "Intervening sequences in an Archaea DNA polymerase gene," <i>Proc. Natl. Acad. Sci. USA</i> 89:5577-5581 (1992);
147	Pontius and Berg, "Rapid renaturation of complementary DNA strands mediated by cationic detergents: A role for high-probability binding domains in enhancing the kinetics of molecular assembly processes," <i>Proc. Natl. Acad. Sci. USA</i> 88:8237-8241 (1991);
148	Rao <i>et al.</i> , " <i>Methanococcus jannaschii</i> Flap Endonuclease: Expression, Purification, and Substrate Requirements," <i>J. of Bacteriology</i> 180:5406-5412;
149	Reagan <i>et al.</i> , "Characterization of a Mutant Strain of <i>Saccharomyces cerevisiae</i> with a Deletion of the <i>RAD27</i> Gene, a Structural Homolog of the <i>RAD2</i> Nucleotide Excision Repair Gene," <i>J. of Bacteriology</i> 177:364-371 (1995);
150	Roychoudhury and Wu, "Novel Properties of <i>Escherichia coli</i> Exonuclease III," <i>J. Biol. Chem.</i> 252:4786-4789 (1997)
151	Saiki <i>et al.</i> , "Primer-Directed Enzymatic Amplification of DNA with a Thermostable DNA Polymerase," <i>Science</i> 239:487-491 (1988);
152	Sambrook <i>et al.</i> , <i>Molecular Cloning. A Laboratory Manual</i> , Cold Spring Harbor Laboratory Press, Cold Spring Harbor, pp. 1.63-1.69 (1989);
153	Setlow and Kornberg, "Deoxyribonucleic Acid Polymerase: Two Distinct Enzymes in One Polypeptide," <i>J. Biol. Chem.</i> 247:232-240 (1972);
154	Siegal <i>et al.</i> , "A 5' to 3' exonuclease functionally interacts with calf DNA polymerase ϵ ," <i>Proc. Natl. Acad. Sci. USA</i> 89:9377-9381 (1992);
155	Shen <i>et al.</i> , "Flap endonuclease homologs in archaeobacteria exist as independent proteins," <i>TIBS</i> 23 (1998);
156	Shen <i>et al.</i> , "Essential Amino Acids for Substrate Binding and Catalysis of Human Flap Endonuclease 1," <i>J. of Biol. Chem.</i> 271:9173-9176 (1996)
157	Smith <i>et al.</i> , "Novel Method of Detecting Single Base Substitutions in RNA Molecules by Differential Melting Behavior in Solution," <i>Genomics</i> 3:217-223 (1988);
158	Sommers <i>et al.</i> , "Conditional Lethality of Null Mutations in <i>RTH1</i> That Encodes the Yeast Counterpart of a Mammalian 5'- to 3'-Exonuclease Required for Lagging Strand DNA Synthesis in Reconstituted Systems," <i>J. of Biol. Chem.</i> 270:4193-4196 (1995);
159	Stark, "Multicopy expression vectors carrying the <i>lac</i> repressor gene for regulated high-level expression of genes in <i>Escherichia coli</i> ," <i>Gene</i> 5:255-267 (1987);
160	Studier and Moffatt, "Use of Bacteriophage T7 RNA Polymerase to Direct Selective High-level Expression of Cloned Genes," <i>J. Mol. Biol.</i> 189:113-130 (1986);
161	Tindall and Kunkel, "Fidelity of DNA by the <i>Thermus aquaticus</i> DNA Polymerase," <i>Biochem.</i> 27:6008-6013 (1988);
162	Turchi <i>et al.</i> , "Enzymatic completion of mammalian lagging-strand DNA replication," <i>Proc. Natl. Acad. Sci. USA</i> 91:9803-9807 (1994);
163	Uhlenbeck, "A small catalytic oligoribonucleotide," <i>Nature</i> 328:596-600 (1987);
164	Urdea <i>et al.</i> , "A novel method for the rapid detection of specific nucleotide sequences in crude biological samples without blotting or radioactivity; application to the analysis of hepatitis B virus in human serum," <i>Gene</i> 61:253-264 (1987);
165	Wartell <i>et al.</i> , "Detecting base pair substitutions in DNA fragments by temperature-gradient gel electrophoresis," <i>Nucl. Acids Res.</i> , 18:2699-2701 (1990);

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Group Art Unit: 1634

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

- | | |
|-----|--|
| 166 | Wu and Wallace, "The Ligation Amplification Reaction (LAR) - Amplification of Specific DNA Sequences Using Sequential Rounds of Template-Dependent Ligation," <i>Genomics</i> 4:560-569 (1989); |
| 167 | Wu <i>et al.</i> , "Processing of branched DNA intermediates by a complex of human FEN-1 and PCNA," <i>Nucleic Acids Research</i> 24:2036-2043 (1996); |
| 168 | Xu <i>et al.</i> , "Biochemical and Mutational Studies of the 5'-3' Exonuclease of DNA Polymerase 1 of <i>Escherichia coli</i> ," <i>J. Mol. Biol.</i> 268:284-302 (1997); |
| 169 | Zwickl <i>et al.</i> , "Glyceraldehyde-3-Phosphate Dehydrogenase from the Hyperthermophilic Archaeobacterium <i>Pyrococcus woesei</i> : Characterization of the Enzyme, Cloning and Sequencing of the Gene, and Expression in <i>Escherichia coli</i> ," <i>J. Bact.</i> 172:4329-4338 (1990); |
| 170 | Hiraoka <i>et al.</i> , "Sequence of human FEN-1, a structure specific endonuclease, and chromosomal localization of the gene (FEN1) in mouse and human," <i>Genomics</i> 25:220-225 (1995); |
| 171 | Augustyns <i>et al.</i> , "Hybridization specificity, enzymatic activity and biological (Ha-ras) activity of oligonucleotides containing 2,4-dideoxy-beta-D-erythro-hexopyranosyl nucleosides," <i>Nucleic Acids Res.</i> 21:4670-4676 (1993); |
| 172 | Agrawal <i>et al.</i> , "Modified oligonucleotides as therapeutic and diagnostic agents," <i>Current Opinion in Biotechnology</i> , 6:12-19 (1995); |
| 173 | Corey, "4800-fold Acceleration of Hybridization of Chemically Modified Oligonucleotides," <i>J. of the Amer. Chem. Soc.</i> 117:9373-9374 (1995); |
| 174 | Cotton, "Current methods of mutation detection," <i>Mutation Research</i> 285:125-144 (1993); |
| 175 | Schmidt <i>et al.</i> , "The use of oligonucleotide probes containing 2'-deoxy-2'-fluoronucleosides for regiospecific cleavage of RNA by RNaseH from <i>Escherichia coli</i> ," <i>Biochimica et Biophysica Acta.</i> 1130:41-46 (1991); |
| 176 | Gamper <i>et al.</i> , "Solution Hybridization of Crosslinkable DNA Oligonucleotides to Bacteriophage M13 DNA," <i>J. Mol. Biol.</i> 197:349-362 (1987) |
| 177 | Southern, "Detection of Specific Sequences Among DNA Fragments Separated by Gel Electrophoresis," <i>J. Mol. Biol.</i> 98:503-517 (1975) |
| 178 | Lima <i>et al.</i> , "Implication of RNA Structure on Antisense Oligonucleotide Hybridization Kinetics," <i>Biochemistry</i> 31:12055-12061 (1992) |
| 179 | Lee <i>et al.</i> , "Allelic discrimination by nick-translation PCR with fluorogenic probes," <i>Nucleic Acids Res.</i> 21(16):3761-3766 (1993) |
| 180 | Livak <i>et al.</i> , "Oligonucleotides With Fluorescent Dyes at Opposite Ends Provide a Quenched Probe System, Useful for Detecting PCR Product and Nucleic Acid Hybridization," <i>PCR Methods and Appln.</i> 4:357-362 (199) |
| 181 | Sigman <i>et al.</i> , "Chemical Nucleases," <i>Chem. Rev.</i> 93:2295 (1993) |
| 182 | Abramson <i>et al.</i> , "Characterization of the 5'-3' Exonuclease Activity of <i>Thermus Aquaticus</i> DNA Polymerase," <i>FASEB J.</i> 5(4) 386 (1991) |

Examiner:

Date Considered:

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